

G3ZME  
G6ZME

[www.TelfordHamfest.co.uk](http://www.TelfordHamfest.co.uk)

November/December 2020

**[www.telfordhamfest.co.uk](http://www.telfordhamfest.co.uk)**

VILLAGE HALL, MALTHOUSE BANK, LITTLE WENLOCK, TELFORD, SHROPSHIRE. TF6 5BG

# Editorial

It is just **FIFTY YEARS** since I took over producing the Newsletter for the Telford & DARS, or Wrekin Amateur Radio Society as it was then; November 1970—I wrote my first Editorial ! I rattled on about wanting to include everyone's ideas and views, which sounds like a good start for what it's worth. Then there were the forthcoming events: Committee meeting (10.12.70), The RAE (radio amateurs C&G exam) (01.12.70). A FET dip oscillator project was under way, with 8 members building one. A visit to the ITV transmitter centre and 1000ft. mast at Lichfield (6.02.71) was planned—which I still remember. 1000 KW TX and almost my first view of colour TV test bars in the control room at ground level—beautiful !

Almost all the previous 296 Newsletters since then have been produced by myself, although there was a brief change of editorship when I was up to my eyes in career progression, and Tom Crosbie took over for a short while (see photo below—Tom standing next to his wife Jean, with his father behind). Hopefully I shall reach Issue # 300 some time next year (2021).

MIV

**P.S.** Cue for a past photo. Can you identify which year it was taken ? 19??

L to R: Bob G4VSO, Tom G6PZZ + XYL Jean & Bill Crosbie (Dad), Mike G4AUZ (SK), Pete G4AUY, Dave G4EIX, Ray G3XQL (SK), Dave G(M)3YEW, Martyn G3UKV.



Telfordhams



@g3zme



**RSGB YEARBOOK**  
Great Britain & N.Ireland  
**CALLBOOK**  
**2021**



**WIN** this club copy of the RSGB Yearbook, worth £19.99

(non-RSGB members price) and in its 528 pages it covers almost all aspects of Amateur Radio in the U.K.— 90,000 callsigns, repeaters, Amateur TV, NRC, QSL bureau, Get on the Air to Care, Morse, National & Local Club entries, Exam centres, Planning advice, Contest callsigns, EMC, Operating abroad, IOTA, Satellites etc—even a **picture** of Paul 'AQA, Heather 'HMO and Dave 'CER receiving a Trophy off the President of RSGB !! (pg.109)

**TO WIN you must be a member of TDARS**

as of **Wed. 16th December**, so that your name can be drawn out of a hat (well, maybe not literally . . .) of members' names the following Wednesday (Dec. 23) at the Minced Pie & Mulled Wine Social event. (See page 1).

**TELFORD & DISTRICT AMATEUR RADIO SOCIETY : 2019-21**

**CHAIRMAN:** Simon Bird G0UFE (telfordslivewire@hotmail.co.uk Tel: 01952 401018)

**VICE-CHAIRMAN:** Martyn Vincent G3UKV (ukv@ukv.me.uk Tel:01952 255416)

**SECRETARY:** John Humphreys M0JZH (m0jzh@yahoo.co.uk Tel:07824 737716)

**TREASURER:** Paul Athersmith M0PLA (paul.athersmith@gmail.com Tel:07966 969230)

**CURATOR :** Don Nicholls M0TBQ (donsnicholls@outlook.com Tel: 01952 411680)

**TRAINING and 'Beyond Exams':** Graham Cowan G7LMF (training@tdars.org.uk)

**NEWSLETTER EDITOR:** Martyn Vincent G3UKV (01952 255416 or 07421 001166)

**PUBLICITY/WEBMASTER :** Dave G0CER ([davekh@gmail.com](mailto:davekh@gmail.com))

**Committee:** Brian G6UDX; Graham G7LMF; Ian M0IRP; Village Hall Committee Liaison officer Martin 2E0TRO. QSL Manager Paul M0PNN; Assist Curator: Chris 2E0EOH; Trophies/Certs: Martyn G3UKV.

# *Qtc: News & Information*



**TDARS MEETINGS EVERY WEDNESDAY EVENING HELD NORMALLY AT LITTLE WENLOCK VILLAGE HALL**

**NO MEETINGS AT LWVH UNTIL FURTHER NOTICE (Covid-19)**

**Please note: A current membership card may be required to borrow TDARS equipment. Please return borrowed equipment promptly.**

**The use of Webex online for TDARS** has continued throughout the Summer / Autumn. It even has certain advantages over meeting at Little Wenlock Village Hall (LWVH). In particular, we have been able to invite speakers from anywhere to give interesting presentations from wherever they live—distance ‘no object’, no travel costs! So we’ve welcomed Steve Hartley G0FUW from Bath, Ian Evans G10AZB from Dungiven, N. Ireland, Bill Coombes G4ERV of Bournemouth—with more to come. Furthermore at the end of each presentation, any member present online can put their own question(s) to the guest and get an immediate reply from the ‘expert’. Still—most members miss the personal touch of meeting fellow members, and having a chat at LWVH, perhaps followed by a visit to the local watering hole. Change sooner or later?

**Future speakers provisionally booked** include Mike Richards G4WNC (Raspberry Pi), John Rogers M0JAV (checking for VDSL QRM), Dom Smith M0BLF (Using QO-100 satellite), Tim Kirby G4VXE (World of VHF) and Vinnie Hopkins M0TAV (The RSGB). But remember the note at the top of page 1—TDARS programme of events are “subject to change at short notice”.

The Committee have been concerned that since the **AGM could not be held in March 2020** when annual subs. were due, members might not renew their membership of TDARS for 2020/21. However, Simon G0UFE (Chairman) noted with delight that paid-up member numbers are currently around the same as in 2019/20—about 42. Furthermore, the Society strongly hopes to hold its next AGM ‘for real’ in March 2021. Meanwhile, keep in touch—Everyone.

Now that the RSGB has announced that A.R exams for all 3 licence levels can be taken online, several members have taken the opportunity to do just that. So **CONGRATULATIONS** to Jez 2E0JXW who is now M0JXW and Robert 2W0FOI who has passed the exam and is in the process of negotiating with OfCOM to be granted a MW0... plus suffix that reflects his direct interest in early Medium Wave stations such as Criggion “GBY” - but is not usually issued.

(see page 7)



Various restrictions due to the pandemic have meant that many **members have had more time to use their radios and get ‘on air’**. This has sometimes included entering various contests on a range of amateur bands. In the UKAC VHF-and-up series (Tues/Thurs evenings), at least 10 members have sent in entries since January. At present, TDARS is 21st of 38 ‘Local’ radio clubs Viz:-

6 metres—G0CER, G0UFE, M0HMO, G3UKV, M7KBO

4 metres—G0CER, M0TBQ, G0UFE

2 metres—G0CER, M7KBO (2E0PZM), G0UFE, M0PNN, M0JZH, M0TBQ, G3UKV

70cms—G0CER, M0PNN, G0UFE, M0TBQ, M0JZH, M7KBO/P

23cms—G3UKV, G4URT, G8AQA, M0TBQ, G0UFE

SHF (3cm, 6cm, 9cm, 13cms) — G3UKV (7 sessions SHF overall)



**Further contest reports follow** in these pages.

Worthwhile to note that Contests are not everyone’s cup of tea, but even a passing involvement usually leads to station and antenna assessments and improves operating skills. You quickly find out how effective your station is in the real world, and can make changes that will increase satisfaction and enjoyment—even fun !





# Loop Counterpoise Noise Reduction Project by Simon G0UFE

In the October 2020 Radcom there was an article describing a loop counterpoise system to reduce interference which consisted of a 1 to 1 balun, a loop counterpoise and an earth stake and, because I have a high noise level at this QTH, I thought I would give it a try.

The balun consists of a ferrite core, Ferroxcube TX36/23/15-4A11, with 7 turns of 1.5mm 2 cable bifilar wound, 2 high voltage 47pf capacitors, 1.1 Mohm resistor and 3 stainless steel 6mm X 25mm bolts c/w washers, nuts and wing nuts. The balun has an SO239 for coax feed and 3 other connections, 1 for the antenna, 1 for the loop and 1 to an earth stake ( see photos for details).

My inverted L antenna for 160M to 10M has always performed well, but over the last year the noise level has increased to around S9 sometimes S9+.

I'll try anything to get the noise level down.

The loop was run around the top part of my garden and is about 18 to 20 metres in length.

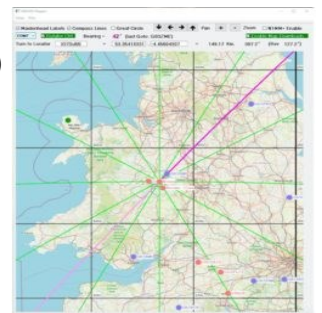
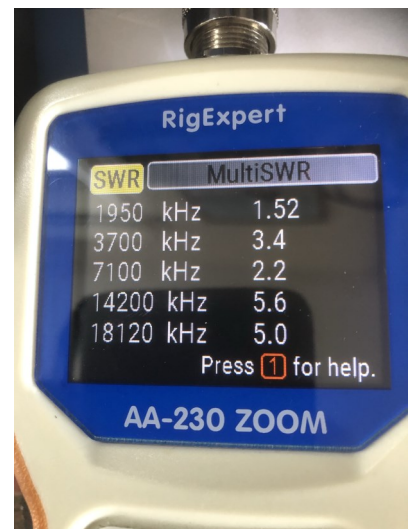
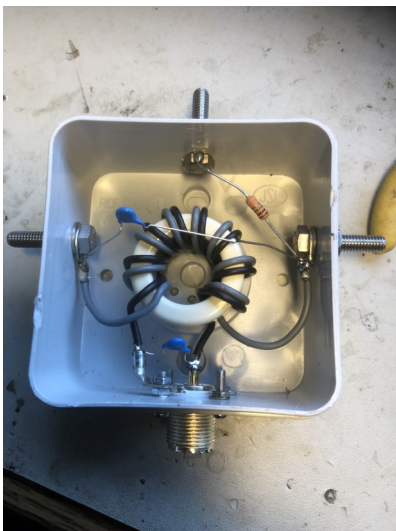
The balun was connected up to the antenna, loop and stake has per the article.

On completion of the installation I checked to see what the VSWR was on each band with my Rig Expert analyser. The good thing with this instrument is that you can check 160,80,40,20 and 10metres all in one go. The results showed a very slight increase in VSWR on each band but still all usable, 160m before 1.45 - 1 after 1.52 - 1, 40m 1.7 - 1 and 2.2 - 1. 20m to 10m needs tuner.

Noise wise 160m before S9 now S7, 80m before S9/S9+ now S7/8 but the best was 20m down from S8 to S5. A good start I thought. There is still some more testing to be done to see if other things alter it -- i.e. Time of day, weather etc.

So if you have noise problems try this one, it just might make things better.

My thanks to Martyn 'UKV from obtaining the ferrite core for me (and others) and to my XYL for letting me loose in her garden. [ Ed: Pse let me know how others are getting on with it. ]



Following on from Heather's (M0HMO) Software Award — a comprehensive Mapping System — at the online RSGB Convention in October, here she is again at the BATC “CAT20” event at the end of October, where she received an award for her outstanding “Long Mynd” software which enhances and supercedes an earlier version of multi-band Digital Amateur TV reception. The award is being presented by Dave Crump G8GKQ (top of photo) chairman of the BATC.

**MANY CONGRATULATIONS, HEATHER !**

## TDARS Members' Contest + Successes 2019, 2020

Not been a bad year for Members taking part in various radio contests, as well as other successes (See page 4: Heather M0HMO—RSGB & BATC awards, Page 6 Jez M0JXW going from SWL to Full M0 in just over 4 months... ).



**Dave G0CER** always very active in UKAC, RTTY and IOTA etc. events.

*"Hi Martyn - I received from the RSGB an award which should have been given to me at the Convention in October- so they posted it.*

*The award was created by the Scottish GMDX club, it's a Quaich and it was for UK & CD, Single Op, Low Power 24 hours section of the 2019 IOTA Contest.*

*I've attached a photo of me with it in case you would like to use it in the Newsletter."* [ He does look satisfied, doesn't he ? ! - Ed ]

Further e-mail from Dave G0CER: (29/10/20) *"Results are out from the recent BARTG 75 baud RTTY contest - I came 9th (the **top** UK station) in the single operator All band 100w max section :) 76 entries in that section. Note the QRP section only had 6 entries. "*

For many years, G3ZME/P has featured high in results tables of the UK Microwave Group. However, due to cancellation of the UKuW AGM and Round-Table at Martlesham (Suffolk) last April (Covid-19), we had not noted the outcome of our 2019 ventures on the summit of Brown Clee (IO82QL), so it was with delight that we found we had won overall on 10GHz (G3RPE Trophy) and 24GHz (G0RRJ Trophy), and this year we are 1st. on 24GHz Championship and hopeful on another two uWave bands. Ops./helpers this year have been Martyn G3UKV, Paul G8AQA, Heather M0HMO and Kevin G8UPF. Here's Paul & Heather setting up their mobile 2 metre microwave talkback antenna on Brown Clee. Quite imaginative and inspiring ! Plus Martyn's winning semi-backpacking dish etc for 24 GHz. Additional helpers invited for 2021. . . .



And then there's ATV—well, actually Digital ATV— with the home-brewing equipment being constantly developed and expanded on multiple VHF/UHF/SHF bands by David M0YDH, supported by his son Peter M6EMP. David gained Top-spot on 70cms DATV in the summer International ATV event.

*" Hi Martyn*

*I know that the club members like to celebrate contest results.*

*Reading CQ-TV 269 activity reports shows me in a good light. Is that a valid observation for the Newsletter? Peter M6EMP is pictured with our ATV station on 14 June in the International Contest at Titterstone Clee Hill car park. This spot near the radar station is superb for testing filters and susceptibility to RFI !*

*I forgot to bring my 437 band pass filter. Doh! "*



## My Amateur Radio Licencing Journey by Jez, M0JXW

It's been a rollercoaster of study over the last few months as I have embarked on my journey into amateur radio. I appreciate that it's been a bit topsy-turvy with me working through the study material and exams in a short time but with relatively little time on the air, rather than serving the apprenticeship at each level before moving on up.

Looking back, my journey towards being licenced started on the 8<sup>th</sup> of April when I purchased a copy of the Foundation licence manual. Roughly two months later my foundation was passed and my M7 Callsign issued on 11<sup>th</sup> June. According to my Amazon purchase history, the Intermediate manual was bought on 4<sup>th</sup> June just before my Foundation exam. My 2E0 callsign was issued on 20<sup>th</sup> August, following an exam pass on 16<sup>th</sup> August (the earliest date I could book on the RSGB portal as there was a rush to book intermediate exams the morning that they went 'live'). I repeated the feat for the full exam once they were put live giving me roughly two months to study. Earlier this evening (28<sup>th</sup> October) I managed to pass the Full licence exam with a score of 46/58. It's been six and a half months from the start of my journey, and 4 and a half months from Foundation pass to Full. [ Incredible: surely a record ?- Ed ]

My first foray into radio started back in 1992 at college, when our electronics lab tech scribbled out a simple FM radio 'bug' circuit for us, and turned a blind eye while we raided the component store. I built a few versions (including a very compact smaller than matchbox sized Veroboard version). Through various house moves, I've lost them all, but I keep meaning to build another while we still have an FM radio in the house. I should have done something about getting licenced back then, but a career in IT beckoned.

My interest was awakened again in 2008 by a colleague (G4BUD) sharing the results of his efforts, working the United States from Ibiza with 5 watts into a wire dipole strung up between some trees. Sadly, once again I failed to act and remained unlicensed for another 12 years. Finally, during a brief visit to the YOTA station run by the club in Wellington a few years ago I met Graham, Heather, and (I think) Simon (and probably a few others). Graham joined with me on Facebook, and it has been his posts popping up every now and again which have reminded me that I need to get off my arse and get licensed. RSGB moving to remotely invigilated online exams this year, while maybe removing a potential source of income and new members from local clubs, has allowed people like me to become licensed from the relative comfort of our own homes around family and work commitments. Long may it continue. More amateurs on the air, can only be a good thing.

Being a career techie, I'm interested in solving problems and my initial interest is in constructing a number of vertical and horizontal wire antennas for HF and testing their effectiveness and portability, most likely using various digital modes and mostly at QRP power levels. I have stated before that one of the other challenges I have set myself, is to do amateur radio as cheaply as possible (relatively speaking). I can't guarantee that will always be the case, but there is fun to be had with a Yaesu FT-817 and 5 watts, and I'm going to keep an eye on products from the less desirable bottom end of the market occupied by brands such as Xiequ.

We've just missed it for this year, but with my two boys in the Scouts (one Cub and one Explorer), I'd like to think that we can set something up for JOTA/JOTI next year, COVID-19 permitting.

~+

**ALL ABOARD**—another photo from the past—2010—to fill a Newsletter gap. /MM on the River Severn.

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## Musings from Robert 2W0FOI

I am looking to up my game in the power stakes a little, so I have decided to modify one of my old "broadcast heavy-weights" to operate on SSB.

I have an old ship-shore radio telephone, a SE748 transceiver made by Debeg (Telefunken). Actually, it's a matched Tx/Rx pair (i.e. totally separate transmitter/receiver).

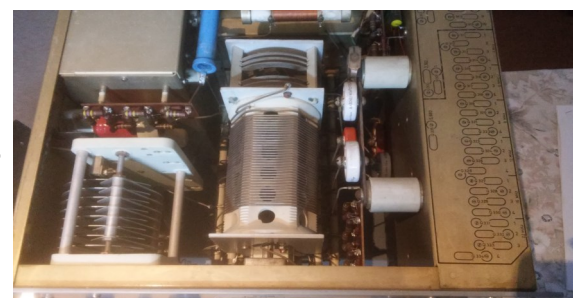
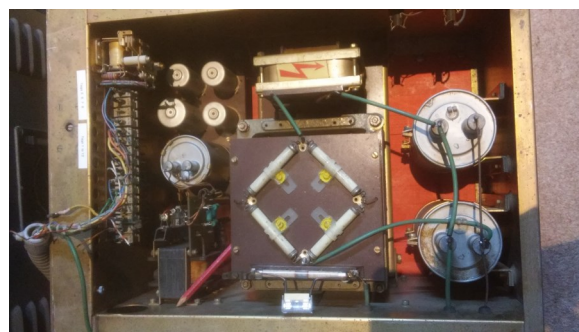
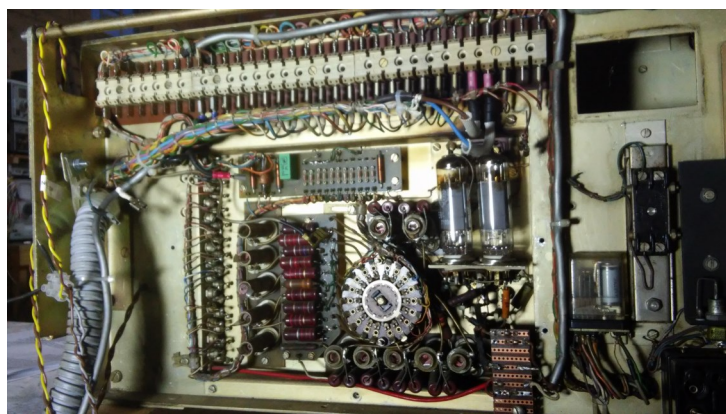
[ Ed: Photo: RX on top, TX below

The receiver is an all-crystal unit with a valve in the front end and transistors everywhere else (great for lightning protection on a ship), so it's not so very useful for DX. It does have a tuneable band-spread front end. The Transmitter is a 400W AM unit, also all-crystal, preset channels (no VFO). I intend to use Martyn's old FT101ZD or my spare FT901DM as an exciter, directly into the O/P valve grid (via suitable filtering and matching). I guess you could say it's my main winter project.



The slight problem with the SE748 is I have no circuit diagram. It's a fairly complex beast with crystal derived channels, a broad band transistor linear/exciter with twin EL84 drivers(?) in what looks to be "parallel configuration". I have not figured the elaborate modulation circuit yet. The EL84's just may be screen modulation amplifiers, which will complicate things further. The good news is all this can be by-passed if the EL84s are indeed drivers and I will let Yaesu do all that work. I will have to have a re-think if it does use screen grid modulation.

Photos show (i) The back of the transmitter section showing the twin EL84 driver valves and O/P valve grid tuning arrangements, (ii) The PSU, O/P valve 3,000V/600V/-300V + heaters. EL34 HT/screen grid, heaters and LV driver supply. (iii) The tank circuit, output tuning coils & door-knob capacitors. Front left, output loading capacitor. Top left, the square box contains the O/P tetrode which is force air cooled (I forget the valve nomenclature for the moment).



**P.S.**

I currently await Ofcom to allocate me a Criggon related call-sign. The 3 x 50KW Marconi HS81 transmitters on site (until 2003) used the GBY call-sign (possibly GBW GBX as well). While the 16KHz VLF transmitter over-the-road used GBZ (as per my foundation call-sign, MW7GBZ). Under the Freedom of Information Act 2000 Ofcom recently published several UK Amateur call-sign lists (allocated, reserved, available etc). After consulting the reserved call-signs and noting a few down, I had a nice chat using Ofcom's on-line chat facilities. I asked if I could have an appropriate reserved callsign that included "GBY". It appears they try to accommodate such requests. I was asked to apply in writing with my "specific requirements", which I did . Heaven knows what they will give me, or when. Watch this space.....or next month's Newsletter.....

~+



**Finally . . . .**

Some odds and ends, including a few online links that may be of interest to Readers:-

**The GB3TF 70cm voice Repeater** licence has been transferred from Martyn G3UKV to John M0JZH. However, in September the LWVH Committee decided to move internet provider from BT to Plusnet, so that at present 'TF cannot link to the outside world (via Wires-X) as the router SSID address has changed. Normal local contacts are unaffected—both FM and Fusion. Once updated and re-commissioned, GB3TF will resume extended operation. It is also intended to check, and possibly improve, filtering arrangements at the same time to further reduce de-sensing.

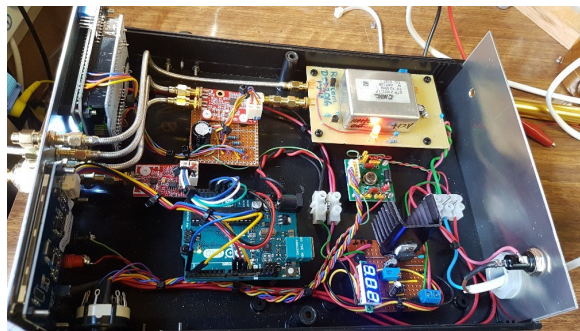
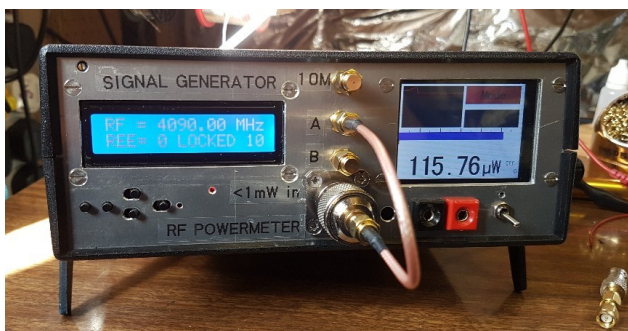
**From Pete G4URT:** (4/10) “Just read the following article by John G4SWX... <https://groups.io/g/RSGB-Workshop/message/4797> Its about the positive experience he has had with LED floodlights (ie no QRN). He gives the thumbs up for the LED floodlights flogged by Screwfix under the LAP brand.

Co-incidentally I also use a lot of LAP LED downlights also from Screwfix and I do not suffer any noise from them as well (I can however only speak for 2m). So maybe, just maybe they actually conform with EMC regs? “

**Reply from Don G6FHM:-** “I have a lot of LED Lighting in our house, down the stairs, in the kitchen, dinning room and in my Shack (the spare bedroom). No problem as they all run off a 12v battery that is charged by a solar panel or mains 12v PSU. They are controlled to come ON and OFF automaticity as the darkness and lightness appears. The wiring is very discrete old telephone cable.”

**From David M0YDH:-** “Hello all - I've finished my @flcjn signal generator and @DL2SBA RF power meter. Here's the output being measured. It makes 35MHz to 4.4GHz but with loads of harmonics. Both Arduino projects were relatively straightforward. The signal generator was working straightaway once I had turned the backlight down so the text appeared! I heard it sounding on 145.4MHz on my handheld.

I squeezed in an AD584 precision voltage ref so I can check multimeters at 3 values. They're £3 on EBay. I added a 2nd buffer amp to the 10MHz oscillator and connected this to the panel. That makes this frequency reference available for other applications. I guess you can use Chinese EBay versions of the ADF4351 synthesizer and AD8318 power heads rather than proper SV1AFN cards to keep the cost down. Rather than expensive Hewlett Packard test instruments here's a Holman Packed-in-tight home instrument!



**Paul M0PLA** asked about source of **GOOD 3D printers:-** (28/10)

“Hi Paul, I have a Monoprice mp10 mini and find it pretty good, it just seems to work once set up, had no real problems with it as yet. Bought mine from the guys in Hortonwood West— there's 5 or 6 models [www.3dprintz.co.uk](http://www.3dprintz.co.uk) . Regards **Peter G1OAR** . “

“Hi Peter. Thanks for the info I went to **3dprintz** today and a nice bunch of guys. I have now purchased a Monoprice mp10 300 x 300 with a red, black and yellow 1kg pla filament. They have also given me a few files that I liked: i.e. the dinosaur etc. I am also now in the process of quoting for their on-going fire and security needs so a good visit lol ! Just need to set it up and start to learn and play at the weekend. Thanks again. “ (Paul, 'PLA, 29/10)

**From Paul G8AQA:** “Solar panels are quite common and cause RFI. Here is an interesting article. ('Can Home Solar Panels & Ham Radio Co-exist' by Tony B-F K1KP) <https://www.fair-rite.com/wp-content/uploads/2020/10/Brock-Fisher-April-2016-QST.pdf> It should be noted that optimisers are not that common yet and in the UK, meters do not go backwards. Fortunately we do not have optimisers on our system.” [The article gives lots of relevant info. as well as various filter solutions etc—Ed.]

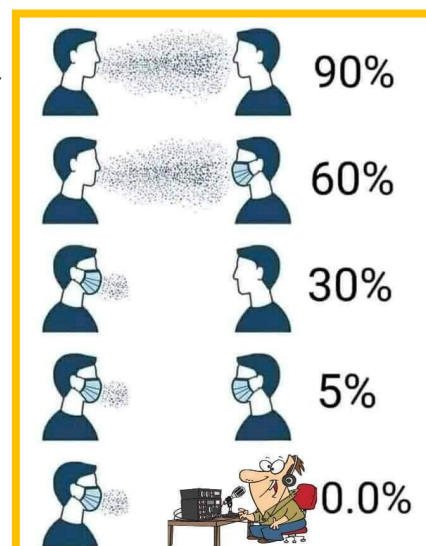
An enquiry regarding metallic joints when making and assembling antennas.

**From Peter G4URT:-** I use this from Innovantennas...

<https://www.innovantennas.com/en/shop-page/426/34/x-pol-yagis-eme/conductaseal-element-joining-pasteInnovAntennas.html>

It has zinc particles in it. I've used it for the DEs of my LFAS. Works a treat - no corrosion in the trombone joints at all. Had the tin for several years now - A little goes a long way!

From Paul G8AQA  
**TITLE: VIRUS**



**Thanks for Newsletter input this time:**  
**Robert 2W0FOI, Simon G0UFE, Jez M0JXW, Martyn G3UKV,**  
**Paul G8AQA, Dave G0CER. David M0YDH, John M0JZH**  
**Peter G4URT, Peter G1OAR, Don G6FHM**  
**Next edition Jan / Feb. 2021**  
**Please keep it coming— Don't just leave it to someone else !**